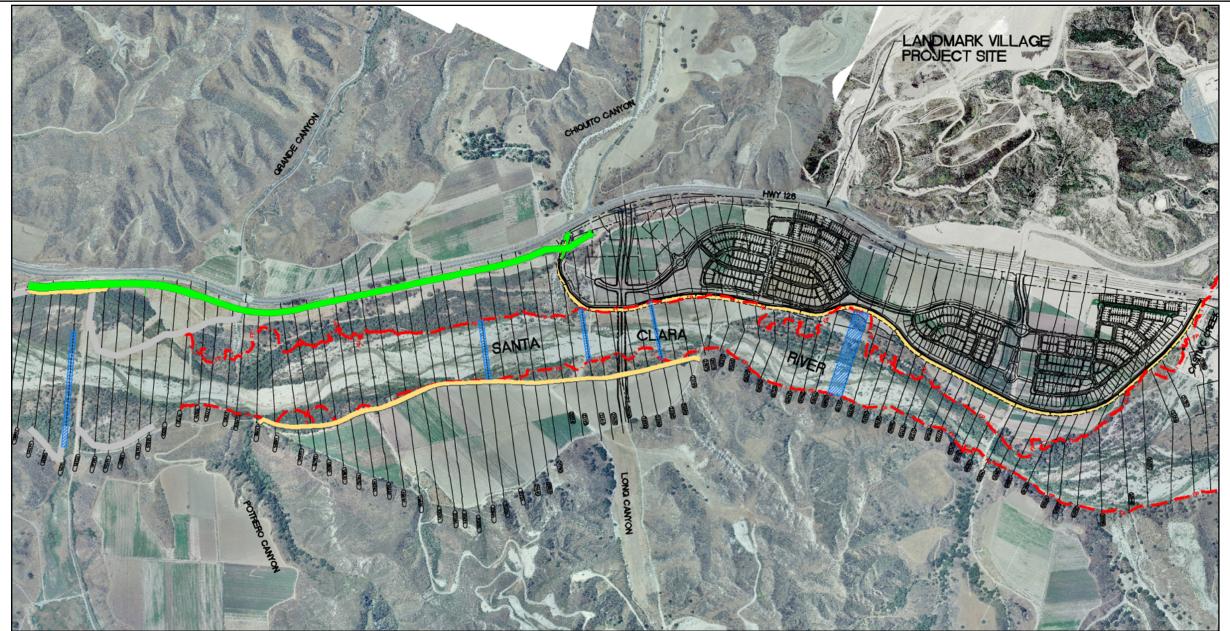
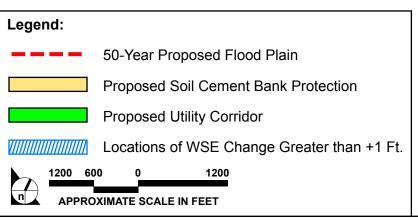


SANTA ROAD CHINGH ROAD

SOURCE: PACE - August 2006

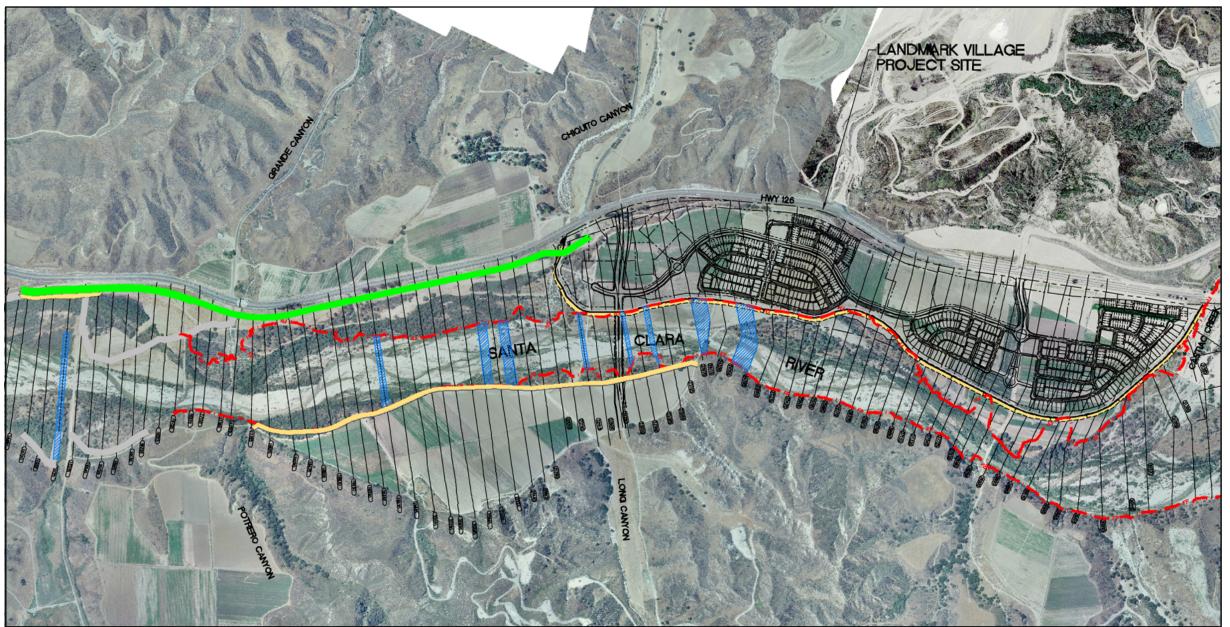
FIGURE **4.5-8d**

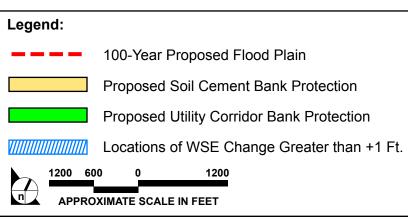




SANTA ROAD CHINGH ROAD CHINGH ROAD

SOURCE: PACE - August 2006





SANTA SOME CANON ROAD CANON ROAD

SOURCE: PACE - August 2006

Based on these results, the floodplain modifications associated with the project (i.e., bank protection, bridge, and development in the River Corridor SMA/SEA 23 described above) would not cause significant scouring, and therefore, would not alter the amount and pattern of aquatic, wetland, and riparian habitats in the river at the project site. The current pattern of scouring due to high velocities would remain intact, as shown previously on **Figures 4.5-7a** through **4.5-7f**. Based on this information, no significant impacts would occur due to changes in river velocity.

(c) Impacts on Water Depths

An increase in water depth in the river could result in significant biological impacts if the additional water depth causes greater "shear forces" (i.e., friction caused by the weight of water) on the river bottom, and thereby increasing scouring of the channel bed and removal of vegetation. This effect could reduce the extent of aquatic, wetland, and riparian habitats in the river.

The results of the hydraulic analysis indicate that water depths in the river would not increase significantly due to project improvements. Water depths for all return events would not be significantly different between existing and proposed conditions (Figures 4.5-8a through 4.5-8f) at the project site and downstream. Hence, the project improvements would not cause significant scouring and therefore, would not alter the amount and pattern of aquatic, wetland, and riparian habitats in the river. Therefore, no significant impacts would occur due to changes in water depths in the river.

(d) Impacts on River Corridor SMA/SEA 23

Consistent with the Specific Plan, limited amounts of riparian habitat (6.48 acres) located within the River Corridor SMA/SEA 23 would be converted to developed uses as part of the Landmark Village project. The 6.48 acres to be developed consists of riparian-associated plant communities, including southern willow scrub, southern cottonwood willow riparian forest, mule fat scrub, freshwater marsh, and elderberry scrub. Development within the River Corridor SMA/SEA 23 is limited to the Long Canyon Road Bridge, portions of the Regional River Trail, a scenic vista path, and portions of the utility corridor. The Landmark Village project development would result in the permanent conversion of 59.59 acres of land within the River Corridor SMA/SEA 23 boundary, of which 24.04 acres are agricultural land, 1.32 acres are coastal sage scrub, 0.16 acre is arrow weed scrub, 0.02 acre is live oak woodland, 2.77 acres is non-native grassland, 0.99 acre is river wash, and 23.80 acres are ruderal. An additional 64.98 acres of habitat within the River Corridor SMA/SEA 23 would be temporarily disturbed by bank stabilization and/or haul roads, but would be planted with native vegetation following completion of construction.

The Board of Supervisors contemplated these impacts during the project approvals for the Newhall Ranch Specific Plan. Section 22.56.215(A)(1) of the County Code requires that a conditional use permit be

obtained prior to commencing development within an SEA, and Section 22.56.215(F) requires the applicant to demonstrate that the proposed development conforms to the SEA "design compatibility criteria." The Board of Supervisors found that the Newhall Specific Plan is consistent with the County's SEA design compatibility criteria as it relates to SEA 23. The Board also determined that the development proposed in the Specific Plan is designed to be highly compatible with the biotic resources present in SEA 23, including the setting aside of appropriate and sufficient undisturbed areas.

Further, the Board found that the Specific Plan is consistent with General Plan policies regarding the balancing of SEA policies against other competing public needs. In its discussion of SEA policies, the General Plan states: "Major factors influencing the realization of Plan [SEA] objectives...include...the competing priorities between resource preservation and other critical public needs." (See, Los Angeles County General Plan, p. LU-A12.) Among other things, the Board found that the Specific Plan's bridge crossings implement portions of the County's Master Plan of Highways and are considered essential to the development of a local and regional transportation system. In addition, the Specific Plan's RMP includes an extensive mitigation and habitat management program for the River Corridor SMA/SEA 23. The RMP is considered a significant benefit to the river corridor. The River Corridor SMA would also be dedicated to the public and managed, neither of which occur in SEAs (lands under the County's SEA designation remain under private control and are not typically managed for resource protection).

Finally, the hydraulic analysis shows that the proposed bank stabilization and bridge improvements would not hinder flows under most conditions or cause widespread and chronic scouring of the channel bed and banks through increased velocities or water depth. Scouring can remove a significant amount of aquatic, wetland, and riparian habitats from the river channel. This could substantially modify the relative amounts of these habitats in the river, essentially altering the nature and quality of the riverine environment. Because, the floodplain modifications associated with the project would not alter the amount and pattern of aquatic, wetland, and riparian habitats in the river at the project site, no significant impacts would occur due to changes in flows within the river.

(e) Impacts on Sensitive Aquatic Species

General Findings

As indicated below, no significant impacts to the five targeted sensitive aquatic species would occur as a result of the project implementation. This is generally due to the fact that no substantial change to the aquatic habitats that support sensitive species would occur (for conclusions related to the more general biological impacts of the proposed project, please see EIR **Section 4.4**, **Biota**. Specific reasons for the absence of significant impacts to these sensitive aquatic species are provided below.

Unarmored Threespine Stickleback

The potential impacts to unarmored threespine stickleback due to the construction and persistence of the project's bank stabilization features and the bridge construction are expected to be less than significant. Stickleback are known to inhabit the Newhall Ranch reach of the Santa Clara River adjacent to the Landmark Village project area. The location of the proposed stabilization features is set back beyond the existing River Corridor SMA/SEA 23 in a majority of the project and construction would not result in significant changes to the overall velocities in the river during frequent storm intervals. Any changes to river hydrology, created by the project, occur during the larger storms when river velocities are high and scouring of river habitat occurs. Thus, project influence on fish is likely to be transparent when viewed in conjunction with flood flows. Based on reconnaissance surveys conducted following recent flood events (January and February 2005), high flow conditions appear to have dislocated and dispersed aquatic organisms downstream.

The Flood Technical Report for the Landmark Village Project (PACE, 2006) found that there would be no significant impacts in water flows, velocities, depth, sedimentation, or floodplain and channel conditions adjacent to and downstream of the project site as a result of the proposed project improvements and that such improvements are consistent with those analyzed and approved as part of the Newhall Ranch Specific Plan. These hydraulic effects were also found in the Newhall Ranch Specific Plan EIR to be insufficient to alter the amount, location and nature of aquatic and riparian habitats in the project area and downstream into Ventura County. Based on that technical assessment, ENTRIX concluded that no impacts to adjacent or downstream populations of the unarmored threespine stickleback are expected as a result of the project.

Runoff from developed uses could potentially impact aquatic organisms and systems. However, several Project Design Features (PDFs) have been incorporated into the project to address water quality and hydrologic impacts, including site design, source control, treatment control, and hydromodification control Best Management Practices (BMPs). Effective management of wet and dry weather runoff water quality begins with limiting increases in runoff pollutants and flows at the source. Site design and source control BMPs are practices designed to minimize runoff and the introduction of pollutants in stormwater runoff. Treatment control BMPs are designed to remove pollutants once they have been mobilized by rainfall and runoff. Hydromodification control BMPs are designed to control increases in post-development runoff flows.

As currently planned, stormwater runoff from all urban areas within the project would be routed to bioretention areas, vegetated swales, and/or extended detention basin treatment control BMPs. The extended detention basin, vegetated swales, and bioretention areas would be designed to operate off-line,

receiving dry weather flows, small storm flows, and the initial portion of large storm flows from a low-flow diversion structure in the storm drain.

The Landmark Village Water Quality Technical Report (GeoSyntec, 2005) indicates that the modeled concentrations in runoff from developed areas with PDFs are below all benchmark water quality objectives and criteria and total maximum daily loads (TMDL) waste load allocations for the Santa Clara River, and are addressed by a comprehensive site design, source control, and treatment control strategy. These water quality objectives are established to protect various beneficial uses including general wildlife, Rare, Endangered, Threatened and sensitive species. Therefore, potential impacts from the project on receiving water quality and beneficial uses in the Santa Clara River are not significant, and no impacts to adjacent or downstream populations of unarmored threespine stickleback are expected.

Arroyo Toad

A number of surveys have been conducted over the years in an attempt to document the presence or absence of the arroyo toad from this segment of the Santa Clara River. As described above, standardized USFWS "protocol" surveys conducted by Impact Sciences 2001 and Compliance Biology 2004 showed that components of arroyo toad habitat exist within the Landmark Village project boundaries. In addition, non-protocol surveys by Aquatic Consulting Services (2002b) also identified arroyo toad habitat in the Santa Clara River from the Landmark Village project downstream to the Ventura County line. However, no studies or reports have documented the presence of arroyo toads within the Newhall Ranch Specific Plan boundaries.

Although the arroyo toad has not been recorded from within the project area, seemingly suitable but limited areas of habitat exist within the project boundaries in the reach from Castaic Creek downstream at least to Wolcott Road and possibly to the Long Canyon crossing. It is not anticipated that the proposed project's bank stabilization features would substantially alter the local sediment transport regime or otherwise affect in-stream habitat (spawning, foraging) for arroyo toad. The project area falls within an extremely dynamic reach of the Santa Clara River where high disturbance flood events occur every 5 to 10 years and change the existing stream structure. The EIR/EIS for the NRMP area, located directly east of the Landmark Village site, stated that the widening of the river channels within the areas of bank protection (i.e., stabilization) would not cause system-wide channel or bed erosion, or aggradation. In its 1998 and 2002 Biological Opinions on the NRMP (p. 30), USFWS accepted the NRMP's findings, and stated further that the NRMP would not affect arroyo toad habitat negatively within the Santa Clara River mainstem. For these reasons, ENTRIX concluded that utilization of these same methods of bank protection for the Landmark Village project are anticipated to lead to the same result, no impact on arroyo toad habitat.

The Flood Technical Report for the Landmark Village Project (PACE, 2006) found that there would be no significant impacts in water flows, velocities, depth, sedimentation, or floodplain and channel conditions adjacent to and downstream of the project site as a result of the project improvements, and that such improvements are consistent with those analyzed and approved as part of the Newhall Ranch Specific Plan. These hydraulic effects were also found in the Newhall Ranch Specific Plan Program EIR to be insufficient to alter the amount, location and nature of aquatic and riparian habitats in the project area and downstream into Ventura County. Based on that technical assessment, ENTRIX concluded that no impacts to downstream populations of the arroyo toad are expected as a result of the project.

Runoff from developed uses could potentially impact aquatic organisms and systems. However, several PDFs have been incorporated into the project to address water quality and hydrologic impacts, including site design, source control, treatment control, and hydromodification control BMPs. Effective management of wet and dry weather runoff water quality begins with limiting increases in runoff pollutants and flows at the source. Site design and source control BMPs are practices designed to minimize runoff and the introduction of pollutants in stormwater runoff. Treatment control BMPs are designed to remove pollutants once they have been mobilized by rainfall and runoff. Hydromodification control BMPs are designed to control increases in post-development runoff flows.

As currently planned, stormwater runoff from all urban areas within the project would be routed to bioretention areas, vegetated swales, and/or extended detention basin treatment control BMPs. The extended detention basin, vegetated swales, and bioretention areas would be designed to operate off-line, receiving dry weather flows, small storm flows, and the initial portion of large storm flows from a low-flow diversion structure in the storm drain.

The Landmark Village Water Quality Technical Report (GeoSyntec, 2006) indicates that the modeled concentrations in runoff from developed areas with PDFs are below all benchmark water quality objectives and criteria and TMDL waste load allocations for the Santa Clara River, and are addressed by a comprehensive site design, source control, and treatment control strategy. These water quality objectives are established to protect various beneficial uses including general wildlife, Rare, Endangered, Threatened and sensitive species. Therefore, potential impacts from the project on receiving water quality and beneficial uses in the Santa Clara River are not significant, and no impacts to downstream populations of arroyo toad are expected.

California Red-Legged Frog

The ENTRIX field evaluations indicate that potential spawning or summer habitat for the California redlegged frog is absent from the main channel of the Santa Clara River within the project site. Further, the various USFWS protocol surveys for arroyo toads conducted along the Santa Clara River from Santa

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Clarita to the Ventura County line during the past few years would probably have found California redlegged frogs if they occurred in the mainstem of the Santa Clara River, but none were reported during these surveys. Within the project area, impacts to California red-legged frogs would probably result only from short-term construction activity effects on the unlikely presence of dispersing red-legged frogs during the construction process. On that basis, implementation of project improvements would not significantly affect California red-legged frog populations.

The Flood Technical Report for the Landmark Village Project (PACE, 2006) found that there would be no significant impacts in water flows, velocities, depth, sedimentation, or floodplain and channel conditions adjacent to and downstream of the project site as a result of the project improvements, and that such improvements are consistent with those analyzed and approved as part of the Newhall Ranch Specific Plan. These hydraulic effects were also found in the Newhall Ranch Specific Plan Program EIR to be insufficient to alter the amount, location and nature of aquatic and riparian habitats in the project area and downstream into Ventura County. Based on that technical assessment, ENTRIX concluded that no impacts to adjacent or downstream populations of the California red-legged frog are expected.

Runoff from developed uses could potentially impact aquatic organisms and systems. However, several PDFs have been incorporated into the project to address water quality and hydrologic impacts, including site design, source control, treatment control, and hydromodification control BMPs. Effective management of wet and dry weather runoff water quality begins with limiting increases in runoff pollutants and flows at the source. Site design and source control BMPs are practices designed to minimize runoff and the introduction of pollutants in stormwater runoff. Treatment control BMPs are designed to remove pollutants once they have been mobilized by rainfall and runoff. Hydromodification control BMPs are designed to control increases in post-development runoff flows.

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The Landmark Village Water Quality Technical Report (GeoSyntec, 2006) indicates that the modeled concentrations in runoff from developed areas with PDFs are below all benchmark water quality objectives and criteria and TMDL waste load allocations for the Santa Clara River, and are addressed by a comprehensive site design, source control, and treatment control strategy. These water quality objectives are established to protect various beneficial uses including general wildlife, Rare, Endangered, Threatened and sensitive species. Therefore, potential impacts from the project on receiving water

quality and beneficial uses in the Santa Clara River are not significant, and no impacts to existing populations of red-legged frog are expected.

Southwestern Pond Turtle

Project impacts on southwestern pond turtles will probably include temporary or permanent alteration of aquatic channel foraging habitat consequent to construction activities, possible loss of basking areas, but probably no long-term effects from bank stabilization as long as adjacent channels or secondary channels (braided system) continue to exist. Oviposition habitat on the south bank and downstream will probably not be affected by bank stabilization, but may be damaged during future road and bridge development. However, these impacts would be temporary in nature and are limited in extent. The bank stabilization would be predominantly constructed outside of the River Corridor SMA/SEA 23 on agricultural land far enough from the river corridor to allow high frequency flows to meander unimpeded within the river. Consequently, habitat preferred by the pond turtle such as permanent or nearly permanent water and basking sites, would remain.

The Flood Technical Report for the Landmark Village Project (PACE, 2006) found that there would be no significant impacts in water flows, velocities, depth, sedimentation, or floodplain and channel conditions adjacent to and downstream of the project site as a result of the project improvements, and that such improvements are consistent with those analyzed and approved as part of the Newhall Ranch Specific Plan. These hydraulic effects were also found in the Newhall Ranch Specific Plan Program EIR to be insufficient to alter the amount, location and nature of aquatic and riparian habitats in the project area and downstream into Ventura County. Based on that technical assessment, ENTRIX concluded that no significant impacts to adjacent or downstream populations of the southwestern pond turtle are expected as a result of proposed project.

Runoff from developed uses could potentially impact aquatic organisms and systems. However, several PDFs have been incorporated into the project to address water quality and hydrologic impacts, including site design, source control, treatment control, and hydromodification control BMPs. Effective management of wet and dry weather runoff water quality begins with limiting increases in runoff pollutants and flows at the source. Site design and source control BMPs are practices designed to minimize runoff and the introduction of pollutants in stormwater runoff. Treatment control BMPs are designed to remove pollutants once they have been mobilized by rainfall and runoff. Hydromodification control BMPs are designed to control increases in post-development runoff flows.

As currently planned, stormwater runoff from all urban areas within the project would be routed to bioretention areas, vegetated swales, and/or extended detention basin treatment control BMPs. The extended detention basin, vegetated swales, and bioretention areas would be designed to operate off-line,

receiving dry weather flows, small storm flows, and the initial portion of large storm flows from a low-flow diversion structure in the storm drain.

The Landmark Village Water Quality Technical Report (GeoSyntec, 2005) indicates that the modeled concentrations in runoff from developed areas with PDFs are below all benchmark water quality objectives and criteria and TMDL waste load allocations for the Santa Clara River, and are addressed by a comprehensive site design, source control, and treatment control strategy. These water quality objectives are established to protect various beneficial uses including general wildlife, Rare, Endangered, Threatened and sensitive species. Therefore, potential impacts from the project on receiving water quality and beneficial uses in the Santa Clara River are not significant, and no impacts to adjacent or downstream populations of southwestern pond turtle are expected.

Two-Striped Garter Snake

Although fundamentally terrestrial, the two-striped garter snake depends entirely on aquatic habitat for foraging. While the preferred microhabitat is poorly understood, the greatest numbers occur in areas along stream courses where the combination of in-stream rocky or other covers, terrestrial vegetation or other cover, and easy access to aquatic forage species of the approximate size exists.

The proposed bank stabilization would be predominantly constructed outside of the River Corridor SMA/SEA 23 on agricultural or ruderal land far enough from the River Corridor SMA/SEA 23 to allow high frequency flows to meander unimpeded within the river. Consequently, habitat preferred by the two-striped garter snake would largely remain. Project impacts on two-striped garter snake would be less than significant since the proposed project's bank stabilization features are set back from the active channel and existing snake habitat. No adverse change to foraging habitat is expected from project implementation.

The Flood Technical Report for the Landmark Village Project (PACE, 2006) found that there would be no significant impacts in water flows, velocities, depth, sedimentation, or floodplain and channel conditions adjacent to and downstream of the project site as a result of the project improvements, and that such improvements are consistent with those analyzed and approved as part of the Newhall Ranch Specific Plan. These hydraulic effects were also found in the Newhall Ranch Specific Plan Program EIR to be insufficient to alter the amount, location and nature of aquatic and riparian habitats in the project area and downstream into Ventura County. Based on that technical assessment, ENTRIX concluded that no impacts to adjacent or downstream populations of the two-striped garter snake are expected as a result of the proposed project.

Runoff from developed uses could potentially impact aquatic organisms and systems. However, several PDFs have been incorporated into the project to address water quality and hydrologic impacts, including site design, source control, treatment control, and hydromodification control BMPs. Effective management of wet and dry weather runoff water quality begins with limiting increases in runoff pollutants and flows at the source. Site design and source control BMPs are practices designed to minimize runoff and the introduction of pollutants in stormwater runoff. Treatment control BMPs are designed to remove pollutants once they have been mobilized by rainfall and runoff. Hydromodification control BMPs are designed to control increases in post-development runoff flows.

As currently planned, stormwater runoff from all urban areas within the project would be routed to bioretention areas, vegetated swales, and/or extended detention basin treatment control BMPs. The extended detention basin, vegetated swales, and bioretention areas would be designed to operate off-line, receiving dry weather flows, small storm flows, and the initial portion of large storm flows from a low-flow diversion structure in the storm drain.

The Landmark Village Water Quality Technical Report (GeoSyntec, 2006) indicates that the modeled concentrations in runoff from developed areas with PDFs are below all benchmark water quality objectives and criteria and TMDL waste load allocations for the Santa Clara River, and are addressed by a comprehensive site design, source control, and treatment control strategy. These water quality objectives are established to protect various beneficial uses including general wildlife, Rare, Endangered, Threatened and sensitive species. Therefore, potential impacts from the project on receiving water quality and beneficial uses in the Santa Clara River are not significant, and no impacts to adjacent or downstream populations of two-striped garter snake are expected.

(f) Conclusion

The proposed project would place bank stabilization along selected portions of the river, developing areas behind the bank stabilization, and installing a bridge across the river. These actions would alter flows in the river; however, the effects would only be observed during infrequent flood events that reach the buried bank stabilization. The proposed project would cause an increase in flows, water velocities, and water depth. However, these hydraulic effects would be minor in magnitude and extent. These effects would be insufficient to alter the amount, location, and nature of aquatic and riparian habitats in the project area and downstream. Under the project, the river would still retain sufficient width to allow natural fluvial processes to continue. Hence, the mosaic of habitats in the river that support various sensitive species would be maintained, and the populations of the species within and adjacent to the river corridor would not be significantly impacted.

These findings apply with equal force to other aquatic species dependent upon riparian habitat in the River Corridor SMA/SEA 23 that were not targeted for study in this section, but which are discussed in greater detail in **Section 4.4**, **Biota**. Species such as the Arroyo Chub and Santa Ana sucker, which are expected to occur in the portion of the river adjacent to the project site, have both life history requirements and habitat preferences that are dependent upon aquatic habitat. As described above, the project improvements would not result in significant changes to flow, water velocities, or depth of the river, so the mosaic of habitats that support such aquatic species would be maintained.

8. PROJECT MITIGATION MEASURES

The following mitigation measures have been adopted by the County in connection with its approval of the Newhall Ranch Specific Plan (May 2003). These measures are applicable to the Landmark Village project due to its geographic location along the river and the type of project improvements proposed. Those mitigation measures applicable to the Landmark Village project will be implemented, as appropriate.

a. Mitigation Measures Required by the Adopted Newhall Ranch Specific Plan, as they Relate to the Landmark Village Project

Please refer to **Section 4.2**, **Hydrology**, of this EIR for a listing of Program EIR mitigation measures pertaining to flood control.

b. Additional Mitigation Measures Proposed by this EIR

No additional mitigation beyond that contained in **Section 4.4**, **Biota**, is required because no significant impacts to biological resources are anticipated due to the bank stabilization, bridge, or changes in the floodplain due to project modifications.

9. CUMULATIVE IMPACTS

Because the Landmark Village project implements a part of the Newhall Ranch Specific Plan, this Recirculated Draft EIR tiers from the certified Newhall Ranch Specific Plan Program EIR and Revised Additional Analysis in accordance with Public Resources Code section 21093(a) and *State CEQA Guidelines* section 15168(c). Public Resources Code section 21093 encourages a lead agency to "tier" from a previously certified program EIR, whenever feasible. In this way, the Draft EIR can focus on site-specific issues relating to the Landmark Village project and allow the County, as the lead agency, to concentrate on issues ripe for decision while excluding from consideration issues already decided. (*State CEQA Guidelines* Sections 15168(c), 15385)

In this case, cumulative impacts on the hydrology and hydraulics of the Santa Clara River associated with development of the entire Newhall Ranch Specific Plan were fully evaluated in Section 2.3 (Floodplain Modifications) of the Newhall Ranch Revised Additional Analysis (May 2003). Consequently, this Recirculated Draft EIR incorporates by reference the floodplain modification analysis and conclusions from the certified Revised Additional Analysis (May 2003).

That analysis concluded that the reduction in floodplain area caused by bank protection would not create a significant increase in overall velocities or water depth, because the volume of flow carried in these shallow, slow-moving areas along the margins of the river is small. Moreover, variations are localized and limited in scope, especially when viewed in the entirety of the river corridor within the Specific Plan site and downstream. Therefore, the overall mosaic of habitats in the river would be maintained because the key hydraulic characteristics would not be significantly different under the Specific Plan. Based on these results, the Board of Supervisors found that the proposed bank protection and bridges associated with the Specific Plan would not cause significant changes to key hydraulic characteristics, and, therefore, would not alter the amount and pattern of aquatic, wetland, and riparian habitats in the river at the Specific Plan site and downstream in Ventura County.

10. CUMULATIVE MITIGATION MEASURES

No additional mitigation beyond those contained in **Section 4.4**, **Biota**, for the project are required because no significant cumulative impacts to biological resources are anticipated due to the bank stabilization, bridge, or changes in the floodplain due to project modifications.

11. SIGNIFICANT UNAVOIDABLE IMPACTS

No significant unavoidable project or cumulative impacts are anticipated.